

AMENDMENT UNDER 37 C.F.R. § 1.111

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REMARKS

Claims 1-10 are all the claims pending in the application. Claim 8 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 6-9, and 10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's Admitted Prior-Art (figure 12), hereinafter referred to as AAPA, in view of Iwata (U.S. Patent No. 5,800,728) and Mukai et al (U.S. Patent No. 5,903,083), hereinafter referred to as Mukai. Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over AAPA, Mukai, and Iwata, as applied in the rejection against claim 1, and further in view of Nagayama et al. (U.S. Patent No. 5,779,453), hereinafter referred to as Nagayama. Claim 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over AAPA, Mukai, and Iwata, and further in view of Harris et al. (U.S. Patent No. 5,793,143), hereinafter referred to as Harris. Claim 5 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over AAPA, Mukai, and Iwata, and further in view of Akiyoshi et al. (JP 40-5211741).

§ 112, first paragraph, Rejection - Claim 8

The Examiner rejects claim 8 under § 112, first paragraph, for the reasons set forth on pages 2-3 of the Office Action.

Applicant amends claim 8, as indicated herein, and believes that this amendment obviates the § 112, first paragraph, rejection of claim 8.

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§ 103(a) Rejections (AAPA / Iwata / Mukai) - Claims 1, 6-9, and 10

The Examiner rejects claims 1, 6-9, and 10 for the reasons set forth on pages 3-6 of the Office Action.

Applicant amends claim 1, and similarly amends claim 10, as indicated herein, to incorporate the limitations of claims 4-6, and submits that the applied references do not teach or suggest the limitations of amended independent claims 1 and 10. That is, the applied references do not teach or suggest at least “wherein said permanent magnets are supported by corrosion-resistant holding members surrounding said permanent magnets, wherein at least one portion of a side opposing to the pawl-shaped magnetic pole side surfaces of said permanent magnets is resin-coated, and wherein said permanent magnets are independently attached to each of the magnetic poles of said first and second pole core members,” as recited in amended claims 1 and 10. For example, neither the AAPA, Iwata nor Mukai teaches or suggests at least the combination of elements of claim 1 and 10, including the combination of above-quoted limitations.

Further, Applicant submits that, even if, *assuming arguendo*, certain features of claims 1 and 10 are disclosed in the AAPA, Iwata, Mukai, Nagayama, Harris, and/or Akiyoshi, respectively, such disclosure of features would only be piecemeal and there would have been no motivation to combine these references, to arrive at the present invention, as recited in claims 1 and 10.

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Applicant submits that dependent claims 7-9 are patentable at least by virtue of their respective direct and indirect dependency from independent claim 1.

Claim 6 is canceled, as indicated herein.

§ 103(a) Rejections (AAPA / Mukai / Iwata / Nagayama) - Claims 2 and 3

With respect to claims 2 and 3, Applicant submits that these claims are patentable at least by virtue of their dependency from independent claim 1, as amended. Nagayama does not make up for the deficiencies of the other applied references.

§ 103(a) Rejections (AAPA / Mukai / Iwata / Harris) - Claim 4

Claim 4 is canceled, as indicated herein.

§ 103(a) Rejections (AAPA / Mukai / Iwata / Akiyoshi) - Claim 5

Applicant cancels claim 5, as indicated herein.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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wherein at least one portion of a side opposing to the pawl-shaped magnetic pole side surfaces of said permanent magnets is resin-coated, and

wherein said permanent magnets are independently attached to each of the magnetic poles of said first and second pole core members.

8. (Twice Amended) The ac generator as claimed in claim 7, wherein said restricting means is only disposed in the vicinity of the tips portions and root portions of the magnetic poles of said first and second pole core members to restrict the displacement of said pole tips.

10. (Amended) An ac generator comprising a stator and a rotor:

said stator being disposed within a bracket having an exhaust window and generating a three-phase ac current by a rotating field of said rotor; and

said rotor comprising a rotor coil for generating a magnetic flux, a pole core composed of first and second pole core members disposed so as to cover said rotor coil and having pawl-shaped magnetic poles projecting in staggered relationship, a plurality of permanent magnets disposed on and connected to both side surfaces of said pawl-shaped magnetic poles for reducing the leakage of the magnetic flux between the side surfaces of the adjacent pawl-shaped magnetic poles, and a fan mounted to each of opposite axial ends of the rotor for cooling a heat-generating member heated due to a generator output current;

said permanent magnets being permanent magnets of samarium-iron alloy containing titanium (Ti) and boron (B),

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 4-6 are canceled.

The claims are amended as follows:

1. (Twice Amended) An ac generator comprising a stator and a rotor:

said stator being disposed within a bracket having an exhaust window and generating a three-phase ac current by a rotating field of said rotor; and

said rotor comprising a rotor coil for generating a magnetic flux, a pole core composed of first and second pole core members disposed so as to cover said rotor coil and having pawl-shaped magnetic poles projecting in staggered relationship, a plurality of permanent magnets disposed on both side surfaces of said pawl-shaped magnetic poles for reducing the leakage of the magnetic flux between the side surfaces of the adjacent pawl-shaped magnetic poles, and a fan mounted to each of opposite axial ends of the rotor for cooling a heat-generating member heated due to a generator output current;

said permanent magnets being permanent magnets of samarium-iron alloy containing titanium (Ti) and boron (B),

wherein said permanent magnets are supported by corrosion-resistive holding members surrounding said permanent magnets,

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wherein said permanent magnets are supported by corrosion-resistive holding members surrounding said permanent magnets,

wherein at least one portion of a side opposing to the pawl-shaped magnetic pole side surfaces of said permanent magnets is resin-coated, and

wherein said permanent magnets are independently attached to each of the magnetic poles of said first and second pole core members.